

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of  
Takao KOKUBU et al.

Group Art Unit: 2862

Application No.: 10/501,479



Filed: August 10, 2004

Docket No.: 120323

For: MEASUREMENT VALUE OUTPUT DEVICE, MEASUREMENT VALUE MONITORING  
DEVICE, CURRENT VALUE OUTPUT DEVICE AND CURRENT MONITORING DEVICE

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- ☒ 1. This Information Disclosure Statement is being filed (a) within three months of the U.S. filing date of this non-CPA application, OR (b) before the mailing date of a first Office Action on the merits in the present application. No certification or fee is required.
- ☒ 2. The references were cited in the International Search Report. An English language version of the International Search Report is attached for the Examiner's information.
- ☒ 3. A concise explanation of the relevance of the non-English language references appears in the Appendix attached hereto.
- ☒ 4. An English language Abstract of non-English language reference 2 is attached hereto.
- ☒ 5. A computer-generated English language translation of the following Japanese references has been obtained from the website of the Japanese Patent Office ([http://www.jpo.go.jp]), and is attached, but has not been reviewed for accuracy. See Reference 2.
- ☒ 6. Reference 2 corresponds to Reference 1.

Respectfully submitted,

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Date: December 8, 2004

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## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANTS  
Takao KOKUBU et al.FILING DATE  
August 10, 2004GROUP  
2862

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS
	1.	EP 1 132 744 A2	09/12/2001	EUROPEAN PATENT OFFICE		
	2.	JP-A-2001-257592 w/ abst. & trans.	09/21/2001	JAPAN		
	3.	JP-A-01-212368	08/25/1989	JAPAN		

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

	4.	Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 24302/1981 (Laid-open No. 140421/1982) (Akai Electric Co., Ltd.) September 2, 1982

EXAMINER

DATE CONSIDERED

Examiner: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Date: December 8, 2004

## APPENDIX

### INFORMATION DISCLOSURE STATEMENT

Given below are prior arts with their brief descriptions.

#### Japanese Literature

(1) Japanese Laid-Open Patent No.H01-212368

The clock pulse(CLK) appearing during the time period of the pulse P in a high level is counted by the first counting means (counter 8) and the clock pulse appearing during the time period of the pulse P in a low level is counted by the second counting means (counter 14) and those counted respective values are stored in the memory means (data memory 18) so as to enable to measure the pulse width covering both of the high level period and the low level period without interruptions.

(2) Japanese Utility Model Publication No.S57-140421

The pulse for controlling the switching element of the switching regulator is controlled so as to place the switching element being turned on over the entire period of the battery voltage of the lower limit level at which the regulation of the switching element is disabled, thereby making possible to obtain a stable output until the battery output voltage approaches the level in the vicinity at which the battery is still active to provide the output voltage to the load.

(3) Japanese Laid-Open Patent No.2001-257592

(Priority of EP1132744)

#### Foreign Literature

(1) EP1132744